

spurs orange; antennæ formed and coloured as in *subrubra*, the flagellum ferruginous beneath; tegulæ piceous, with a dark ferruginous patch; first recurrent nervure joining first submarginal cell a little before its end; thoracic spine &c. as in *subrubra*; abdomen oval, not tapering apically, apical segment not produced. Otherwise about as in *subrubra*.

Hab. Picacho Mountain, Mesilla Valley, New Mexico, March 25, 1900, at flowers of *Sphaeralcea Martii*. The plant was also new and was described in 'Botanical Gazette,' July 1901, p. 60.

East Las Vegas, New Mexico, U.S.A.,
Feb. 4, 1902.

BIBLIOGRAPHICAL NOTICES.

A Treatise on Zoology. Edited by E. RAY LANKESTER, M.A., LL D., F.R.S.—Part IV. *The Platyhelminia, Mesozoa, and Nemertini.* By W. BLAXLAND BENHAM, D.Sc. (Lond.), M.A. (Oxon.). London: Adam & Charles Black, 1901.

THE present volume—the fourth in order of the complete series—is by Prof. Benham, who is to be congratulated on having fulfilled a very arduous task in a most successful manner. Singularly unattractive animals, and mostly parasitic in habit, it is not surprising that their study is attempted only by those keenly interested in the advancement of zoological science or in the investigation of the many and often very painful devastating diseases which are inflicted on mankind and the lower animals as a result of this parasitism.

Condensed into a surprisingly small compass, the author has contrived to embody practically everything that is known of these animals; so that this volume will form a source of reference of the highest value alike to the systematist, the morphologist, and the physician.

The historical sections of the various chapters are extremely interesting reading, and bear eloquent testimony to the extreme difficulty which besets the correct interpretation of the structure of these animals and the many pitfalls in the path of the investigator.

The Mesozoa of Van Beneden are very fully dealt with in an appendix to the Platyhelminths, being regarded by the author as degenerate forms of this phylum—a view shared by Whitman and others—and therefore not needing the formation of a special grade to contain them. To this appendix the editor adds a very interesting paragraph on four new species of Orthocetids parasitic in Chaetopods and Nemertines.

The work having been somewhat delayed in the press, a few notes have been added to the chapter on the Nemertines by Mr. R. C. Punnett, of St. Andrews, in order to bring the work completely up

to date. This was necessitated by the removal of Dr. Benham to New Zealand after the MSS. had left his hands; thus justice has been done both to author and those for whom the book is intended.

Three other appendices to the *Platyhelminths* contain descriptions of the remarkable and extremely puzzling forms *Trichoplax*, *Pemmatodiscus*, and *Salinella*. Concerning these the author remarks that, "with the exception of *Pemmatodiscus*, they have only been met with in a 'domesticated' condition in aquaria, and it has been suggested that they are in reality imperfectly developed animals—embryos which cannot attain full development owing to these conditions."

The illustrations are numerous, singularly clear, and well executed, and for the most part original.

Use-inheritance. Illustrated by the direction of Hair on the Bodies of Animals. By WALTER KIDD, M.D., F.Z.S. London: Adam & Charles Black, 1901. Pp. 1-47; 16 text-cuts. Price 2s. 6d.

THE author attempts to show "that certain inherited characters of animals can only be interpreted by considering them to have arisen in ancestors of those animals by use or habit." He bases his argument upon the disposition of the hair on the bodies of animals. Frankly admitting that the general direction of the hair-slope on the body is open to selectionist interpretations, he contends that the familiar whorls and featherings of the hair found in the domestic horse, for example, can have but one explanation—"a dynamical one."

We do not find the author's arguments, often very obscurely set forth, at all convincing. At times, indeed, we venture to think that his method of winning converts is distinctly unfair and calculated to rouse much opposition. Thus he tells us that "The trifling intrinsic importance of these characters (whorls and featherings) . . . produces the impression . . . that *except for maintaining the credit of a great theory*, such as that of Weissmann, there is only one way of interpreting them, and that is according to Lamarek." We protest, and protest vigorously, against the imputation contained in the words we have italicized. Moreover, Lamarekism, by the majority of those qualified to speak, has been weighed and found wanting. It may well be that many things are as yet inexplicable by any theory yet promulgated, and till the light comes, let us say frankly, with Montaigne, "Nor am I ashamed . . . to confess I know not that which I do not know."

A Guide to the Shell and Star-fish Galleries (Mollusca, Polyzoa, Brachiopoda, Tunicates, Echinoderma, and Worms), Department of Zoology, British Museum (Natural History). 1901. Price 6d.

MANY even of those who cannot visit the Natural History Museum will be glad to have this book. Like its predecessors, it is a wonderful production, well written and well illustrated, the text-cuts being not only numerous but most excellent of their kind.